

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS

-1- (Currently Amended)

A method for producing a composition having antioxidant and anti-inflammatory activity mixture ~~comprising anthocyanins, bioflavonoids and phenolics~~ from an edible berry ~~as a composition~~ which comprises:

5 (a) providing an aqueous solution containing juice ~~the anthocyanins, bioflavonoids and phenolics~~ from the berry;

(b) removing ~~the~~ anthocyanins, bioflavonoids, and phenolics from organic acids and sugars in the solution by adsorbing the anthocyanins, bioflavonoids, and phenolics onto a resin which does not adsorb the organic acids and sugars ~~surface from the aqueous solution~~;

10

(c) ~~eluting the resin surface with an eluant to remove~~ the anthocyanins, bioflavonoids and phenolics from the resin with an eluant to produce a mixture of the anthocyanins, bioflavonoids and phenolics in the eluant surface; and

15

(d) separating the eluant from the mixture ~~anthocyanins, bioflavonoids and phenolics~~ ; and

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(e) combining the mixture with a carrier for food use which comprises berry pulp separated from the acids, sugars, anthocyanins, bioflavonoids and pheolics contained in the juice to produce a composition having antioxidant and anti-inflammatory activity.

-2- (Currently Amended)

A method for producing a composition having antioxidant and anti-inflammatory activity ~~mixture of anthocyanins, bioflavonoids and phenolics from an edible berry as a composition~~ which comprises:

5 (a) providing a first batch of the edible berries ~~cherries~~, wherein the berries ~~cherries~~ are fresh or quick frozen and thawed;

(b) blending ~~disrupting~~ the ~~berry~~ berries and separating pulp from ~~the~~ juice;

10 (c) extracting ~~the~~ anthocyanins, bioflavonoids and phenolics with organic acids and sugars ~~from the pulp~~ into an aqueous solution from the juice and pulp;

(d) removing the anthocyanins, bioflavonoids, and phenolics ~~onto adsorbent resin particles~~ from the organic acids and sugars in the solution by adsorbing ~~aqueous solution containing~~ the anthocyanins, bioflavonoids, and phenolics onto an adsorbent resin which does not absorb the organic acids and sugars ~~separated from the pulp~~;

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20 (e) washing the resin ~~particles~~ with a lower alkanol to remove the anthocyanins, bioflavonoids and phenolics as a mixture from the resin ~~particles~~;

(f) separating the alkanol from the mixture

~~anthocyanins, the bioflavonoids and phenolics; and~~

(g) ~~(f)~~ repeating steps (a) to (f) ~~(e)~~ with the
separated alkanol and the resin ~~particles~~ from which the
mixture has anthocyanins, bioflavonoids and phenolics
5 ~~have~~ been removed with multiple batches ~~a second batch~~
of the berries ~~berry~~; and

(h) combining the mixture with a carrier for food
use which comprises berry pulp separated from the acids,
sugars, anthocyanins, bioflavonoids and phenolics
10 contained in the juice to produce a composition having
antioxidant and anti-inflammatory activity.

-3-(Original)

The method of Claim 2 wherein the alkanol is
15 ethanol.

-4-(Currently Amended)

The method of any one of Claims 2 or 3 wherein the
berries ~~cherries~~ are individually quick frozen.

20

-5-(Original)

The method of any one of Claims 2 or 3 wherein the resin particles are in the form of a column.

5

-6-(Original)

The method of any one of Claims 2 or 3 wherein the berry is selected from the group consisting of cranberries, raspberries, strawberries, blueberries, blackberries, elderberries, red grapes, gooseberries, Barbados cherries (acerola cherry) and choke cherries.

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-7-(Currently Amended)

The method of Claim 1 wherein in addition after step (d) the mixture is combined ~~the anthocyanins, bioflavonoids and phenolics are mixed~~ with a pulp from the berry as the carrier and then ~~are~~ dried to produce the composition.

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-8-(Currently Amended)

The method of Claim 1 wherein in addition after step (d) the mixture is ~~the anthocyanins, bioflavonoids and phenolics are~~ dried and then combined ~~mixed~~ with a dried pulp of the berry as the carrier to produce the composition.

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-9-(Currently Amended)

The method of any one of Claims 2 or 3 wherein the
in addition after step (f) the mixture is combined
~~anthocyanins, bioflavonoids and phenolics are mixed~~ with
5 the pulp from the berry as the carrier and then ~~are~~
dried to produce the composition.

-10-(Currently Amended)

The method of any one of Claims 2 or 3 wherein in
10 addition after step (f) the mixture is ~~the anthocyanins,~~
~~bioflavonoids and phenolics are~~ dried and then combined
~~mixed~~ with a dried berry pulp as the carrier to produce
the composition.

15 -11-(Currently Amended)

The method of Claim 7 wherein in addition the
mixture of the anthocyanins, the bioflavonoids, the
phenolics and the pulp are formed into a tablet to
produce the composition.

20

-12- (Currently Amended)

The method of any one of Claims 2 or 3 wherein in
after step (f) in addition the mixture is combined the
~~anthocyanins, bioflavonoids and phenolics are mixed~~ with
the a pulp from the berry as the carrier and then ~~are~~
5 ~~dried and wherein the mixture of the anthocyanins, the~~
~~bioflavonoids, the phenolics~~ and the pulp are then
formed into a tablet to produce the composition.

-13- (Currently Amended)

The method of any one of Claims 2 or 3 wherein in
addition after step (f) the mixture is the anthocyanins,
~~bioflavonoids and phenolics are~~ dried and then combined
~~mixed~~ with dried pulp of the berry as the carrier and
5 ~~wherein the mixture of the anthocyanins, the~~
~~bioflavonoids, the phenolics~~ and the pulp are then
formed into a tablet to produce the composition.

-14- (Cancelled)

A consumable composition which comprises in admixture:

(a) dried mixture of isolated anthocyanins, bioflavonoids and phenolics from an edible berry; and

5 (b) a food grade carrier, wherein the weight ratio of (a) to (b) is between about 0.1 to 100 and 100 to 0.1.

-15- (Currently Amended)

A consumable composition which comprises in admixture:

(a) dried mixture of isolated anthocyanins, bioflavonoids and phenolics from an edible berry; and

5 (b) a food grade carrier which comprises berry pulp separated from the acids, sugars, anthocyanins, bioflavonoids and phenolics contained in juice of the berries wherein the weight ratio of (a) to (b) is between about 0.1 to 100 and 100 to 0.1, ~~wherein the~~
10 ~~anthocyanins, bioflavonoids and phenolics are prepared by the method of any one of Claims 1, 2 or 3.~~

~~-17-~~ -16-(Cancelled)

The composition of Claim 14 wherein the carrier is a dried pulp of the berry.

~~-18-~~ -17-(Cancelled)

A method for feeding a mammal which comprises:

feeding the mammal a consumable composition which comprises in admixture:

- 5 (a) dried mixture of isolated anthocyanins, bioflavonoids and phenolics from an edible berry; and
- (b) a food grade carrier wherein the weight ratio of (a) to (b) is between about 0.1 to 100 and 100 to 0.1.

~~-19-~~ -18-(Cancelled)

The method of Claim 18 wherein the carrier is a dried pulp of the berry.

~~-20-~~ -19-(Cancelled)

The method of Claim 18 wherein the mammal is human.

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~~-21-~~ -20-(Cancelled)

The method of Claim 18 wherein the mixture of anthocyanins, bioflavonoids and phenolics is prepared by the method of any one of Claims 1, 2 or 3.

~~-22-~~ -21-(Cancelled)

The method of Claim 18 wherein the mammal is an animal.

-22- (New)

The method of Claim 1 wherein the resin is a polymeric cross-linked styrene and divinylbenzene adsorptive resin.

-23- (New)

The method of Claim 22 wherein the resin surface is a macroreticular structure with a continuous polymer phase and a continuous pore phase.

-24- (New)

The method of Claim 23 wherein the resin surface is as particles having a size between about 100 to 200 microns.

-25- (New)

A method for producing a nutraceutical composition having antioxidant and anti-inflammatory activity which comprises:

5 (a) providing an aqueous solution containing juice from edible berries;

(b) removing anthocyanins, bioflavonoids, and phenolics from organic acids and sugars in the solution by adsorbing the anthocyanins, bioflavonoids, and

phenolics onto a resin which does not adsorb the organic
10 acids and sugars, wherein the resin is certified for use
with food products and has a greater adsorption and
regeneration capacity than XAD-2 resin;

(c) eluting the anthocyanins, bioflavonoids,
and phenolics from the resin with an eluant to produce
15 a mixture of the anthocyanins, bioflavonoids and
phenolics in the eluant;

(d) separating the eluant from the mixture;
and

(e) combining the mixture with a bulking agent
which is certified for food use and which comprises
berry pulp separated from the acids, sugars,
anthocyanins, bioflavonoids and phenolics contained in
the juice to form a nutraceutical composition that
exhibits antioxidant and anti-inflammatory activity.

-26- (New)

A method for producing a nutraceutical
composition with antioxidant and anti-inflammatory
activity which comprises:

(a) providing a first batch of edible berries,
5 wherein the berries are fresh or quick frozen and
thawed;

(b) blending the edible berries and separating pulp from juice;

10 (c) extracting anthocyanins, bioflavonoids and phenolics with organic acids and sugars from the juice and the pulp into an aqueous solution;

15 (d) removing the anthocyanins, bioflavonoids, and phenolics from the organic acids and sugars in the solution by adsorbing the anthocyanins, bioflavonoids, and phenolics onto adsorbent resin particles which do not adsorb the organic acids and sugars, wherein the resin is certified for use with food products;

20 (e) washing the resin particles with a lower alkanol to remove the anthocyanins, bioflavonoids and phenolics as a mixture from the resin particles;

(f) separating the alkanol from the mixture; and

(g) combining the mixture with a bulking agent certified for food use which comprises berry pulp separated from the acids, sugars, anthocyanins, bioflavonoids and phenolics contained in the juice to form a nutraceutical composition having antioxidant and anti-inflammatory activity.

-27- (New)

The method of Claim 26 wherein the alkanol is ethanol.

-28- (New)

The method of any one of Claims 25 or 26 wherein the edible berries are individually quick frozen.

-29- (New)

The method of any one of Claims 25 or 26 wherein the resin particles are in the form of a column.

-30- (New)

The method of any one of Claims 25 or 26 wherein the edible berries are acerola cherries.

-31- (New)

The method of claim 25 wherein the bulking agent in step (e) is pulp from the edible cherries which is combined with the mixture and then dried.

-32- (New)

The method of Claim 25 wherein the mixture is dried after step (d) and then combined with dried pulp from the edible berries as the bulking agent.

-33- (New)

The method of Claim 26 wherein the bulking agent in step (g) is pulp from the edible berries which is combined with the mixture and then dried.

-34- (New)

The method of Claim 26 wherein the mixture is dried after step (f) and then combined with dried pulp from the edible berries.

-35- (New)

The method Claim 25 wherein the dosage unit is a tablet.

-36- (New)

The method of Claim 26 wherein the dosage unit is a tablet.